FDC40

SINGLE, DUAL AND TRIPLE OUTPUT, HIGH DENSITY 40 WATTS DC/DC CONVERTERS

FEATURES

- *2:1 INPUT RANGE*
- *INCLUDE 3.3/5.0 VDC, TRIPLE OUTPUT*
- *PI INPUT FILTER*
- *SIX-SIDED SHIELD*
- *2 YEAR WARRANTY*
- *EFFICIENT UP TO 88%*
- *LOW PROFILE CASE 0.375 INCH*
- *OVER VOLTAGE PROTECTION*
- *OVER CURRENT PROTECTION*
- *INHIBIT/SYNC INPUT*
- *ON/OFF CONTROL*

ELECTRICAL SPECIFICATIONS

All specifications are typical at nominal input, full load, and 25˚C unless otherwise noted.

INPUT SPECIFICATIONS

Input Voltage Range .....See model Selection Guide
Input Filter.....PI Network
Overvoltage Shutdown.....20, 38 or 78VDC
Undervoltage Shutdown.....8, 17 or 34 VDC
Reflected Ripple Current.....75mA, Pk -Pk

OUTPUT SPECIFICATIONS

Voltage Accuracy
Single, Dual Output Models.....±2%, Max.
Triple Output Models; Primary.....±2%, Max. (Adj. to Zero)
Voltage Balance
Dual Output Models.....±2%, Max.
Triple Output Models.....±10%, TYP
Ripple & Noise, 20 MHz BW.....1% Pk-Pk of Vout
Line Regulation
Single Output Models.....±0.5%, Max.
Dual Output Models.....±1.0%, Max.
Triple Output Models; Primary.....±2.0%, Max.
Auxiliaries.....±5.0%, Max.
Load Regulation
Single Output Models.....±0.5%, Max.
Dual Output Models.....±1.0%, Max.
Triple Output Models; Primary.....±2.0%, Max.
Auxiliaries.....±5.0%, Max.
Minimum Output Current % Iout rated (Main Output)
xxD3305 Models.....20%
Dual and Triple Output Models.....10%
Temperature Coefficient.....±0.02%/˚C
Temp. Coefficient Balance.....±1%/˚C
Output Short Circuit Duration.....Continuous
Overvoltage Protection Threshold:
3.3V Output.....3.9V
5V Output.....6.2V
12V Output.....15V
15V Output.....18V

REMOTE ON/OFF CONTROL

Control Voltage Referenced to Negative (-) Input
Compatibility.....CMOS, TTL
On-Control.....4.8V min. or Open
Off-Control.....0.4V max. or Short

GENERAL SPECIFICATIONS

Switching Frequency.....185kHz, typ.
Isolation Voltage.....1600VDC, min
Isolation Resistance.....10^9 Ohms, min

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range.....-25˚C to +85˚C (CASE)
Storage Temperature Range.....-55˚C to +125˚C
Cooling.....Free-air Convection
EMI/RFI.....Six-sided Continuous Shield
MTBF.....2.294×10^5Hours
(MIL-HDBK-217F TA=25˚C Full Load)

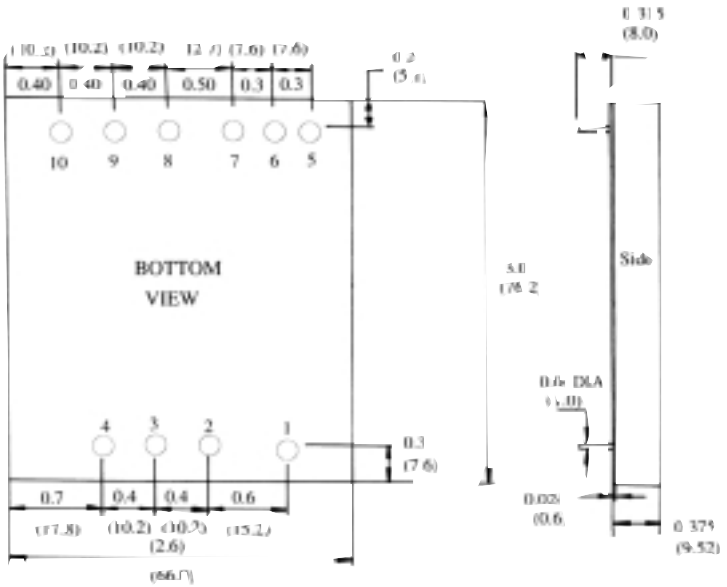
PHYSICAL SPECIFICATIONS

Case Material.....Nickel-Coated Copper with Non-Conductive Base
Dimensions.....2.6x3.0x0.375 Inches (66x76.2x9.5 mm)

Series

MODEL NUMBER	INPUT RANGE	OUTPUT VOLTAGE	OUTPUT CURRENT	% typ. EFF
FDC40-12S33	9-18VDC	3.3VDC	10A	78
FDC40-12S05	9-18VDC	5VDC	8A	82
FDC40-12S12	9-18VDC	12VDC	3.4A	84
FDC40-12S15	9-18VDC	15VDC	2.7A	84
FDC40-12D05	9-18VDC	± 5VDC	7A/-1A	81
FDC40-12D12	9-18VDC	±12VDC	±1.8A	83
FDC40-12D15	9-18VDC	±15VDC	±1.4A	83
FDC40-12D3305	9-18VDC	3.3VDC/5VDC	4A/4A	78
FDC40-24S33	18-36VDC	3.3VDC	10A	81
FDC40-24S05	18-36VDC	5VDC	8A	83
FDC40-24S12	18-36VDC	12VDC	3.4A	88
FDC40-24S15	18-36VDC	15VDC	2.7A	88
FDC40-24D05	18-36VDC	± 5VDC	7A/-1A	82
FDC40-24D12	18-36VDC	±12VDC	±1.8A	84
FDC40-24D15	18-36VDC	±15VDC	±1.4A	84
FDC40-24D3305	18-36VDC	3.3VDC/5VDC	4A/4A	78
FDC40-48S33	36-72VDC	3.3VDC	10A	81
FDC40-48S05	36-72VDC	5VDC	8A	83
FDC40-48S12	36-72VDC	12VDC	3.4A	88
FDC40-48S15	36-72VDC	15VDC	2.7A	88
FDC40-48D05	36-72VDC	± 5VDC	7A/-1A	82
FDC40-48D12	36-72VDC	±12VDC	±1.8A	84
FDC40-48D15	36-72VDC	±15VDC	±1.4A	84
FDC40-48D3305	36-72VDC	3.3VDC/5VDC	4A/4A	78

Triple Output Available



NOTES: 1.ALL DIMENSIONS IN INCHES (mm)
PIN PITCH TOLERANCE ±0.5 mm

Pin Connections

Pin#	Single Output	Dual Output	Triple Output	3.3VDC/5.0VDC
1	Remote On/Off	Remote On/Off	Remote On/Off	Remote On/Off
2	+Input	+Input	+Input	+Input
3	-Input	-Input	-Input	-Input
4	Sync	Sync	Sync	Sync
5	+Output Sense/Trim(Down)	+Output	+Output (Aux)	+3.3VDC
6	Output Trim	Commom	Commom(Aux)	Commom
7	-Output Sense/Trim (Up)	-Output	-Output (Aux)	+ 5.0VDC
8	+Output*	Output Trim	+Output (Primary)	Trim
9	-Output*	NC	-Output (Primary)	NC
10	No Pin	NC	Output Trim (Primary)	NC

Connections for single output models without sensing or external trimming: For proper operation, externally connect Pin5(+Output Sense) to Pin8(+output) and Pin7(-output Sense) to Pin9(-Output).

*NC: NO Connection.